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TELEVISION COMMUNICATION TERMINAL MACHINE  
(Terebi tsushin tanmatsu sochi)

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TERMINAL MACHINE

## Specification

### 1. Title of Invention

TELEVISION COMMUNICATION TERMINAL MACHINE

### 2. Scope of Patent Claims

In the television communication terminal machine that is equipped with a transmitter and a receiver for communicating with the opposite party by voice and connected via a communication circuit and a monitor and camera for communicating with the opposite party by images and an operation box that is inputted with a signal for controlling the said television communication terminal machine to initiate the operation signal of the monitor and the aforementioned camera and a signal for the aforementioned opposite party station selection, the no answer message is registered from the aforementioned opposite party station by the image information and the voice information to send the notification of no answer to the opposite party station. In addition, it is provided with a communication message according to the image information and the voice information sent from the aforementioned opposite party station in response to the no

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<sup>1</sup> the numbers in the margin indicate pagination in foreign text

answer message and a recording means for recording the telephone number of the aforementioned opposite party station and that recording time. When there is no answer, the aforementioned no answer message is read from the aforementioned recording means and sent to the opposite party station. In addition, the recording of the telephone number of the said opposite party station and that recording time are carried out in the aforementioned recording means and this is controlled. Also, the communication message returned from the aforementioned opposite party in response to the aforementioned no answer message is also recorded in the recording means. Also, when the aforementioned operation box is operated, when there is no answer, the aforementioned communication message recorded in the aforementioned recording is retrieved and outputted in the telephone and monitor. The aforementioned message, the recorded time and the telephone number are displayed on the aforementioned monitor. This message can be deleted. In addition, the television communication terminal machine that is characterized as being provided with a television telephone box is also provided with a control means for controlling the registration and deletion of the aforementioned no answer message in the aforementioned recording means and also provided with a

time circuit providing the time information to the  
aforementioned control means.

### 3. Detailed explanation of the invention

(Industrial field of use)

The invention pertains to a television communication terminal machine using a telephone call out system such as a television telephone and television conference connected to a communication circuit.

[Prior Art]

For example, as shown in figure 4, this is a block diagram showing the television telephone machine used as the conventional television communication terminal machine as disclosed in Day Communication, 1987 May 18, page 45 - 48. In the diagram, 1 is the handset containing the transmitter and receiver for communication with the opposite party station by voice. 2 is the camera for picking up the image of the self station for communication with the opposite party station by images. 3 is the monitor for projecting the image of the opposite party station and the image of the self station. 4 is the operation box where a signal is inputted for controlling the said television telephone machine such as the operation signals of the camera 2 and the monitor 3 and the signal for the aforementioned opposite party station selection. 5 is the

number and symbol buttons of the operation box 4. 6 is the same operation button. 7 is the communication circuit connecting the television telephone machines. /2

The action of this machine is given below. To communicate with the opposite party station, the handset 1 is used, the image information of the self station that is pickup up by the camera 2 is sent to the opposite party via the communication circuit 7. The image of the opposite party is sent to the monitor 3 of the self station via the communication circuit 7 or the image from the self station that is pickup by the camera 2 is projected. Also, the communication with the opposite party station by voice is performed using the transmitter and the receiver of the handset 1. Here, the image projected on the monitor 3 is converted into the image of the self station and the opposite party station by pressing 1 of the operation button 6 in the operation box 4.

Also, when the communication originates from the self station, the handset 1 is used, the number and symbol button 5 of the operation box 4 is operated. The signal is inputted for opposite party station selection, the telephone number for the opposite party station and the condensed number. When the opposite party station answer the communication, similar to the above case, communication

is performed by voice and image between the opposite party stations.

[The problems resolved by the invention]

Since the conventional television communication terminal machine is constructed as described above, when there is no answer for the communication, communication is not possible with the opposite party. Also, a voice recorder is attached for recording the telephone call but the communication message according to the voice information cannot be combined with the communication message according to the image information which is a problem.

To eliminate these problems, the purpose of the invention is to offer a television communication terminal machine where the communication message of the voice information and the image information can be obtained from the opposite party station when there is no answer.

[Means for resolving the problems]

In the television communication terminal machine pertaining to the invention, when there is no answer, the aforementioned no answer message is read from the aforementioned recording means and sent to the opposite party station. In addition, the recording of the telephone number of the said opposite party station and that

recording time is carried out in the aforementioned recording means and this is controlled. The television communication terminal machine that is characterized as being provided with a television telephone box is also provided with a control means for controlling the registration and deletion of the aforementioned no answer message in the aforementioned recording means and also provided with a time circuit providing the time information to the aforementioned control means.

[Action]

In the television telephone number message mail box of the invention, the no answer message is registered from the aforementioned opposite party station by the image information and the voice information and this is sent to the opposite party station. In addition, it is provided with a communication message according to the image information and the voice information sent from the aforementioned opposite party station in response to the no answer message and a recording means for recording the telephone number of the aforementioned opposite party station and that recording time. When there is no answer, the aforementioned no answer message is read from the aforementioned recording means and sent to the opposite party station. In addition, the recording of the telephone



number of the said opposite party station and that recording time is carried out in the aforementioned recording means.

[Implementation example]

An implementation example of the invention is explained below according to the diagrams. In figure 1, 1 is the handset for storing the transmitter and the receiver. 2 is the camera. 3 is the monitor. 4 is the operation box. 5 is the number and symbol button. 6 is the operation button. 7 is the communication circuit. The same symbols used in figure 4 are used so an explanation for these parts are omitted. /3

Also, 8 is the television telephone message mail box that is attached to the television telephone. That constitution is shown in figure 2. In figure 2, 11 is the recording means for recording the telephone number of the opposite party station and the recording time. The communication message is according to the image information and the voice information that is returned from the opposite party station in response to the no answer message. 12 is the control means for controlling the registration, retrieval and deletion of the aforementioned no answer message in the recording means 11. In addition, it is used to control the registration, retrieval and

deletion of the opposite party telephone number and that recorded time and the communication message. 13 is the time circuit providing the time information to this control means 12.

Next is the explanation of the action. The button is pressed, this is used for the no answer message registration in the operation button 6 of the operation box 4. After a certain time has elapsed, the image information of the self station pickup by the camera 2 and the voice information notifying that there is no answer by the voice transmitter of the handset 1 are inputted into the control means 12. The control means 12 initiates the control action by operating the button in the operation box 4. The aforementioned image information and voice information that were inputted are registered in the registration region set in the recording means 11 as the no answer message. At this time, the registration time is registered based on the time information provided from the time circuit 13. In this implementation example, the aforementioned no answer message is registered in the aforementioned means 11 that is coded.

When the no answer signal is sent from the opposite party station, the control means 12 read the registration time and the no answer message according to the image

information and the voice information that were registered in a certain registration region of the recording means 11 and these are decoded and sent to the opposite party station via the communication circuit 7. After the no answer message is sent by the control means 12, the communication message according to the image information and the voice information that are returned in response to the no answer message at the opposite party station is time recorded in the recording region carried out by the aforementioned recording means 11. At this time, the telephone number of the opposite party station that returned that communication message and the recorded time based on the time information provided from the time circuit 13 and these communication messages are recorded. In this case, the aforementioned communication message is recorded in the recording means 11 and is coded.

Next, the aforementioned button in the operation button 6 at the operation box 4 is pressed, the number "3" in the number and symbol button 5 is pressed, corresponding to the retrieval of the communication message in the operation button 6, the recording means 11 is retrieved as activated by that operation button, the control means 12 read and decoded the communication message recorded in number 3 recording section. Then, this is sent to the

handset 1 and monitor 3. The image information of the communication message that is decoded in the monitor 3 is reproduced. As shown in figure 3, the telephone number of the opposite party station and the recorded time are displayed on the upper part. Here, the display of the recorded time is displayed in real time from the beginning of the recording time to the end of the recording time. Also, the voice information of the said communication message from the receiver is outputted as voice.

Next, the aforementioned button in the operation button 6 at the operation box 4 is pressed, the number "3" in the number and symbol button 5 is pressed, corresponding to the deletion of the communication message in the operation button 6, the communication message recorded in the number 3 section of the recording region of the recording means 11 is deleted as activated by that operation button, the control means 12 operates that operation button. Thus, 1 recording section is kept for recording the new communication message. Also, instead of pressing the number "3" in the number and symbol button 5, the "\*" and "3" buttons are pressed in this order, the communication message recorded in the recording region from the beginning to the 3<sup>rd</sup> number is deleted. 3 recording regions are maintained for the new communication messages.

Furthermore, when the television telephone message mail box 8 of the self station is operated from the beginning, the telephone number of the self station is dialed from the symbol and number button 5 of the operation box 4 of the television telephone. A pass word is entered.

Here, when the no answer message is registered, the button corresponding to the no answer message registration in the operation button 6 of the operation box 4 is pressed. In addition, the "0" in the number and symbol button 5 is pressed. After a certain time has elapsed, when the image information and the voice information of the no answer message are inputted from the transmitter of the handset 1 and the camera 2, the control means 12 coded the image information and voice information of the no answer message that were inputted and registered these in a set register region of the recording means 11. /4

Also, when the recorded communication message is retrieved, after the "0" in the number and symbol button 5 is pressed in the operation box 4, the "4" in the number and symbol button 5 are pressed in this order in the operation button 6, this corresponds to the communication message retrieval in the operation button 6. The communication message recorded in the number 4 recording region of the recording means 11 of the self station is

read by the control means 12. This is outputted to the monitor 3 and the handset 1 of the television telephone generated via the communication circuit 7. Therefore, the image information of the communication message shown in figure 3 is reproduced in the monitor 3 of the television telephone used for communication. The voice information of the communication message is outputted from the receiver of the handset 1.

In addition, when the deletion of the communication message is performed, after the "0" in the number and symbol button 5 is pressed in the operation box 4, the "4" in the number and symbol button 5 is pressed corresponding to the communication message deletion in the operation button 6, the button in the operation button 6 is pressed in this order so the communication message recorded in the 4<sup>th</sup> recording region of the recording means 11 is deleted. Also, instead of pressing the "4" in the number and symbol button 5, the "\*" is pressed so the all recording regions are cleared.

Here, when the television telephone message mail box of the self station is operated from another television telephone, after the telephone number of the self station is dialed, when a pass word is not entered, an error pass word is not entered. The contents of the recording can be

kept. Also, during registering and retrieval, the appropriate image is displayed on the monitor 3.

Furthermore, in the above implementation example, the retrieval and deletion of the communication message and the registration of the no answer message are performed by the operation of the operation button 6 on the operation box 4 but this can be performed by combining the operation of the number and symbol button 5 on the operation box 4. In addition, the recording of the communication message and the registration of the no answer message are performed in the recording means 11 and coded and stored but these can be stored directly in the original signals.

Also, in the above implementation example, the explanation is on the application for the television telephone but this can be applied to a system using a telephone call such as in the television conferencing connected to a communication circuit. The same effect as the implementation example can be obtained.

[Effect of invention]

According to the invention as explained above, the no answer message according to the voice information and the image information that were registered are sent to the opposite party station. The communication message according to the voice information and the image information sent

from the opposite party station are recorded with the recorded time and the telephone number of the opposite party station. The recorded communication message is outputted in the receiver and monitor. The telephone number and recorded time of the opposite party station are displayed on the monitor. Therefore, the communication message from the opposite party station when there is no answer can be obtained not only as the voice information but as an image information.

#### 4. Brief explanation of the diagrams

Figure 1 is the block diagram showing the television communication terminal machine according to an implementation example of the invention. Figure 2 is the block diagram showing a constitution of the television telephone message mail box. Figure 3 is the diagram used for explaining the example of the display in the monitor. Figure 4 is the block diagram showing the conventional television communication terminal machine.

1 is the transmitter and receiver (handset), 2 is the camera, 3 is the monitor, 4 is the operation box, 7 is the communication circuit, 8 is the television telephone message mail box, 11 is the recording means, 12 is the control means, 13 is the time circuit.



Furthermore, the same symbols are used for the corresponding parts in the diagrams.

Patent Applicant: Mitsubishi Electronics

Agent: Tasawa, Patent Attorney (& 2 other parties)

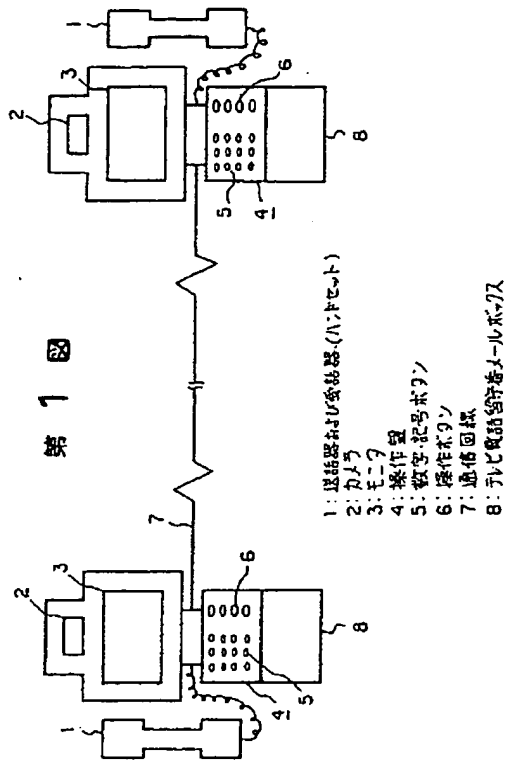


Figure 1

- 1: transmitter and receiver (handset)
- 2: camera
- 3: monitor
- 4: operation box
- 5: number and symbol button
- 6: operation button
- 7: communication circuit
- 8: television telephone message mail box

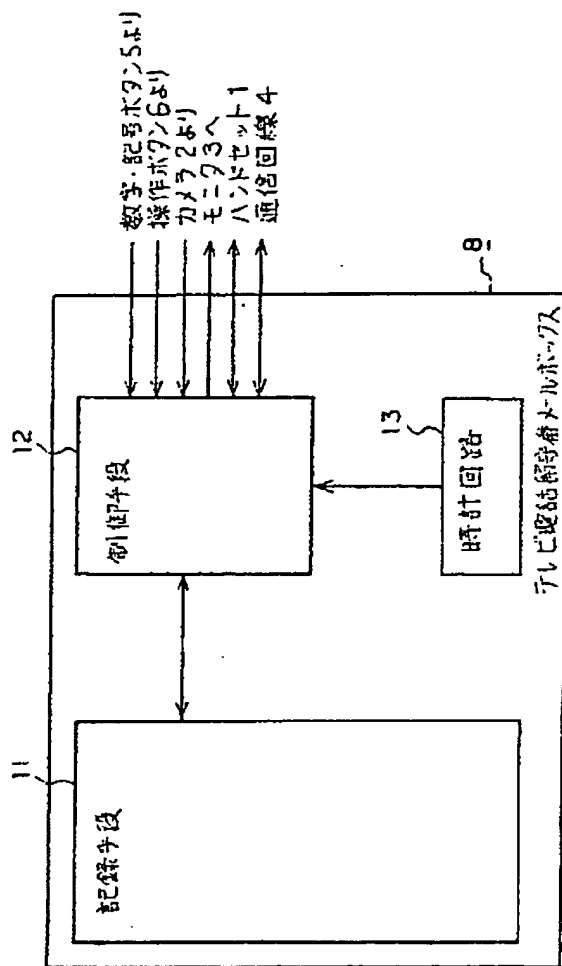


figure 2

8 - television telephone message mail box

11 - recording means

12 - control means

from number and symbol button 5; from operation button 6,  
from camera 2, to monitor 3, handset 1, communication  
circuit 4

13 - time circuit

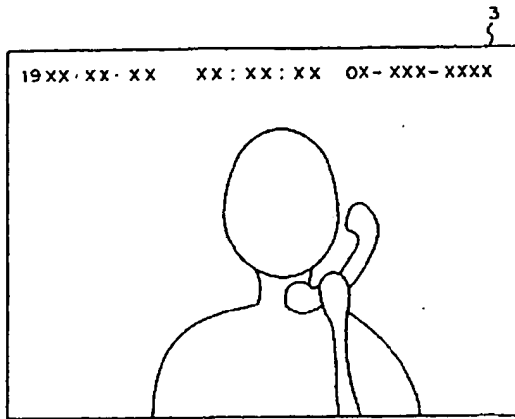


Figure 3

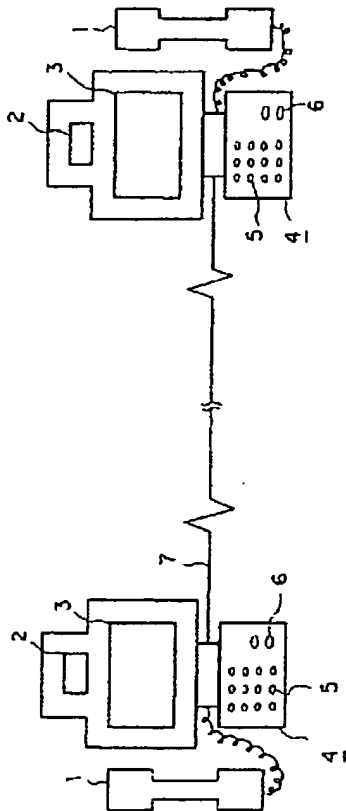


Figure 4

Amendment (Voluntary)

May 7, 1990

Patent Office Commisssioner

1. Display of Article 1 - 318371

2. Title of invention

Television communication terminal machine

3. Party making the amendment

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5. Object of the Amendment

A section in the Detail explanation of the invention of the  
Specification

6. Contents of the Amendment

The specification is corrected according to the below.

Pages: 3 & 11

Lines: 17-18; 12

(Column 3)Before amendment: The image information pickup by  
the camera 2; the "4" is in the symbol button 5

(Column 4) After the amendment: the image pickup by the camera, that image information, the "4" in the symbol button 5.